Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the subject application. Please amend the claims as follows:

Claims 1-5 (Canceled):

Claim 6. (Currently amended): A body insertable prosthesis, including:

a body insertable tubular structure including at least one flexible strand selectively formed to provide a plurality of discrete first tubular segments and a plurality of discrete second tubular segments in an alternating sequence;

wherein the first tubular segments and the second tubular segments have respective first and second nominal diameters when the tubular structure is in a relaxed state and wherein the tubular structure is radially compressible against an elastic restoring force to a predetermined diameter;

wherein the at least one flexible strand further is selectively configured to provide first axial stiffness levels and first radial force levels along the first tubular segments, and second axial stiffness levels and second radial force levels along the second tubular segments, when said tubular structure is radially compressed to the predetermined diameter;

wherein the first axial stiffness levels are higher than the second axial stiffness levels, whereby the second tubular segments, as compared to the first tubular segments, are adapted to more readily conform to a curvature of a body lumen in which the tubular structure is deployed;

wherein the alternating sequence of the first and second tubular segments is tailored to support a curvature of a body lumen, wherein the first tubular segments of the alternating sequence prevents the body insertable tubular structure from foreshortening upon deployment, while the second tubular segments of the alternating sequence prevents kinking of the body lumen caused when the body insertable tubular structure straightens the curved body lumen;

wherein the at least one flexible strand includes a plurality of flexible strands helically wound in opposite directions to form multiple strand crossings defining longitudinally

extending obtuse strand crossing angles, including respective first obtuse and second obtuse strand crossing angles along the first and second tubular segments, respectively;

wherein the first and second nominal diameters are substantially the same; and

wherein the second obtuse strand crossing angle is larger than the first obtuse strand crossing angle.

Claims 7-75. (Canceled):

Claim 76. (Currently amended): A body insertable prosthesis, including:

a body insertable tubular structure including a plurality of flexible strands selectively formed to provide a plurality of discrete first tubular segments and a plurality of discrete second tubular segments in an alternating sequence, wherein the flexible strands are helically wound in opposite directions to form multiple strand crossings defining longitudinally extending obtuse strand crossing angles, including respective first obtuse and second obtuse strand crossing angles along the first and second tubular segments, respectively, wherein the second obtuse strand crossing angle is larger than the first obtuse strand crossing angle;

wherein the first tubular segments and the second tubular segments have respective first and second nominal diameters when the tubular structure is in a relaxed state, and the tubular structure is radially compressible against an elastic restoring force to a predetermined diameter;

wherein the at least one flexible strand further is selectively configured to provide first axial stiffness levels and first radial force levels along the first tubular segments, and second axial stiffness levels and second radial force levels along the second tubular segments, when said tubular structure is radially compressed to the predetermined diameter;

wherein the first and second nominal diameters are substantially the same;

wherein the alternating sequence of the first and second tubular segments is tailored to support a curvature of a body lumen, wherein the first tubular segments of the alternating sequence prevents the body insertable tubular structure from foreshortening upon deployment, while the second tubular segments of the alternating sequence prevents kinking of the body

lumen caused when the body insertable tubular structure straightens the curved body lumen; and

wherein the first axial stiffness levels are higher than the second axial stiffness levels, whereby the second tubular segments, as compared to the first tubular segments, are adapted to more readily conform to a curvature of a body lumen in which the tubular structure is deployed.

Claim 77. (Previously presented): The prosthesis of claim 76 wherein:

all of the first axial stiffness levels are substantially the same, and all of the second axial stiffness levels are substantially the same.

Claim 78. (Previously presented): The prosthesis of claim 76 wherein: the second radial force levels are higher than the first radial force levels.

Claim 79. (Previously presented): The prosthesis of claim 76 wherein:

all of the first radial force levels are substantially the same, and all of the second radial force levels are substantially the same.

Claim 80. (Previously presented): The prosthesis of claim 76 wherein:

the first obtuse strand crossing angles are substantially the same, and the obtuse second strand crossing angles are substantially the same.

Claim 81. (Previously presented): The prosthesis of claim 76 wherein:

the tubular structure consists essentially of the alternating sequence of the first tubular segments and the second tubular segments.

Claims 82- 83. (Canceled)

Claim 84. (Currently amended): A prosthesis insertable into body lumens with natural curvature, including:

a body insertable tubular wall composed of a plurality of flexible strands helically wound in opposite directions to form multiple strand crossings defining longitudinally extending obtuse strand crossing angles, and further incorporating a plurality of first tubular wall segments and a plurality of second tubular wall segments in an alternating sequence, the first and second tubular wall segments having respective nominal diameters when in a relaxed state and being radially compressible against an elastic restoring force to a predetermined diameter, wherein the obtuse strand crossing angles along the second tubular wall segments are larger than the obtuse strand crossing angles along the first tubular wall segments;

wherein the nominal diameters of the first and second tubular wall segments are substantially the same; ~~and~~

wherein the first and second wall segments when radially compressed to the predetermined diameter have respective axial stiffness levels, with the first tubular wall segments having relatively high first axial stiffness levels, and with the second tubular wall segments having second axial stiffness levels lower than the first axial stiffness levels, whereby the second tubular wall segments, as compared to the first tubular wall segments, are adapted to more readily conform to a curvature of a body lumen in which the tubular wall is deployed; and

wherein the alternating sequence of the first and second tubular segments is tailored to support a curvature of a body lumen, wherein the first tubular segments of the alternating sequence prevents the body insertable tubular structure from foreshortening upon deployment, while the second tubular segments of the alternating sequence prevents kinking of the body lumen caused when the body insertable tubular structure straightens the curved body lumen.

Claim 85. (Previously presented): The prosthesis of claim 84 wherein:

all of the first axial stiffness levels are substantially the same, and all of the second axial stiffness levels are substantially the same.

Claim 86. (Previously presented): The prosthesis of claim 84 wherein:

the first and second tubular wall segments when radially compressed to the predetermined diameter have respective radial force levels, with the first tubular wall segments having first radial force levels, and with the second tubular wall segments having second radial force levels.

Claim 87. (Previously presented): The prosthesis of claim 86 wherein:

the second radial force levels are higher than the first radial force levels.

Claim 88. (Previously presented): The prosthesis of claim 86 wherein:

all of the first radial force levels are substantially the same, and all of the second radial force levels are substantially the same.

Claim 89. (Previously presented): The prosthesis of claim 84 wherein:

the obtuse strand crossing angles along the first tubular wall segments are substantially the same, and the obtuse strand crossing angles along the second tubular wall segments are substantially the same.

Claims 90- 92. (Canceled)

Claim 93. (Previously presented): The prosthesis of claim 84 wherein:

the first and second tubular wall segments along said alternating sequence are adjacent one another.